

1 A. TITLE OF THE INVENTION

2 DRESSINGS COMPRISING EMULSIFIED LIQUID SHORTENING COMPOSITIONS  
3 COMPRISING DIETARY FIBER GEL, WATER AND LIPID.

4 B. CROSS-REFERENCE TO RELATED APPLICATIONS

5 Not Applicable

6 C. STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH/DEVELOPMENT

7 The present invention does not involve any form of federally sponsored research or  
8 development.

9 D. BACKGROUND OF THE INVENTION

10 The present invention relates to dressings comprising emulsified liquid shortening  
11 compositions comprising dietary fiber gel, water and lipid. Recent media attention to the global  
12 problem of obesity demonstrates a need for greater availability of foods with low caloric and fat  
13 content. This is especially true for foods that typically have high fat and caloric content, such as  
14 dressings.

15 Dressings typically comprise some fat. Other ingredients can vary according to the type of  
16 dressing and the recipe followed, but typically, dressings are high in both fat and caloric content.

17 In recent years, some companies have begun to offer reduced fat dressings. This variety of  
18 dressing, however, often fails to retain the desirable taste and texture of dressings comprising higher  
19 fat contents.

20 The absence of a means to reduce the fat and caloric content of dressings while still  
21 producing a desirably flavored and textured dressing presents an unmet need in today's food  
22 industry.

23 E. BRIEF SUMMARY OF THE INVENTION

24 It is an object of the present invention to provide a unique composition of matter embodied  
25 by low-calorie and low-fat dressings. This reduction in caloric and fat content answers an unmet

26 need in the food industry to provide the consuming public with a healthier, higher fiber alternative to  
27 traditional types of dressings that typically are inherently fattening. It is another object of the  
28 present invention to provide dressings that have been fortified with insoluble fiber and other  
29 functional foods.

30 Dietary fiber gels for calorie reduced foods hold the key to meeting this need. Dietary fiber  
31 gels for calorie reduced foods are fully described in U.S. Patent number 5,766,662 (the '662 patent).  
32 These dietary fiber gels comprise insoluble dietary fibers consisting of morphologically disintegrated  
33 cellular structures, and are characterized by their ability to retain large amounts of water.  
34 Additionally, these dietary fiber gels are characterized by their high viscosity at low solid levels.  
35 Other insoluble fibers derived from cereals, grains and legumes consist of morphologically intact  
36 cellular structures, and thus impart a gritty texture to the foods in which they are contained. The  
37 dietary fiber gels disclosed in the '662 patent, however, consist of morphologically disintegrated  
38 cellular structures and thus impart a smoother texture than other insoluble fiber formulations.

39 More specifically, the present invention utilizes emulsified mixtures of the dietary fiber gels  
40 disclosed in the '662 patent, the emulsified mixtures further comprising, at a minimum, water and  
41 lipid. These emulsified mixtures are fully described in and are the subject of United States patent  
42 application number 10/669731 filed 09/24/2003. These emulsified mixtures, or "emulsified liquid  
43 shortening compositions comprising dietary fiber gel, water and lipid", can further comprise  
44 functional foods such as high omega three and omega six oils and pure omega three and omega six  
45 fatty acids, medium chain triglyceride, beta carotene, calcium estearate, vitamin E, bioflavonoids,  
46 fagopyritrol, polyphenolic antioxidants of vegetable origin, lycopene, luteine and soluble fiber, for  
47 example Beta-Glucan derived from yeast, and other soluble fibers derived from grain, flax seed, and  
48 other vegetable and fruit fiber sources, and any combination thereof. Hence, in addition to reducing  
49 fat and caloric content of dressings, further health benefits can be achieved by replacing a portion of  
50 fat with emulsified liquid shortening compositions comprising dietary fiber gel, water and lipid.

51 According to the present invention, fat and caloric content can be reduced by the replacement

52 of the fat normally found in dressings with emulsified liquid shortening compositions comprising

53 dietary fiber gel, water and lipid. This replacement of fat does not adversely affect either the taste or

54 texture of the dressings. The result is that fat and caloric content of dressings can be manipulated

55 with minimal effect on taste and texture, and as stated above, additional health benefits can be

56 achieved through consumption of dressings comprising emulsified liquid shortening compositions

57 comprising dietary fiber gel, water and lipid when functional foods are included in the formulations.

58 Further objects, advantages and features of the present invention will present themselves in

59 the following detailed description.

60 F. DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

61 This invention is directed to dressings comprising emulsified liquid shortening compositions

62 comprising dietary fiber gel, water and lipid. According to the present invention, fat and caloric

63 content can be reduced by the replacement of the fat normally found in dressings with emulsified

64 liquid shortening compositions comprising dietary fiber gel, water and lipid (hereinafter "emulsified

65 liquid shortening"). This replacement of fat does not adversely affect either the taste or texture of

66 the dressings. The result is that fat and caloric content of dressings can be manipulated with minimal

67 effect on taste and texture.

68 Alternatively, the dressings can be provided in the form of dressing mixes with the intention

69 that a consumer can mix them at a convenient, post-purchase time, and dressing mixes are

70 considered to be within the scope of this invention. As such, for purposes of this document, the term

71 "dressings" is defined to include dressing mixes.

72 Different categories of dressing are available to consumers, including creamy-type dressings,

73 vinaigrette-type dressings, and mayonnaise. Vinaigrette dressings, for example Italian, oil and

74 vinegar, and the like, can be formulated such that the dressing comprises 0.1 percent to 0.5 percent

75 dietary fiber gel solids by replacing an appropriate amount, that is, prorated to deliver this range of

76 dietary fiber gel solids, of fat, including oil and liquid shortening, with an essentially identical  
77 amount of emulsified liquid shortening. Creamy dressings, for example ranch, blue cheese, creamy  
78 Italian, and the like, as well as mayonnaise, can be formulated such that the dressing comprises 0.1  
79 percent to 3.0 percent dietary fiber gel solids by replacing an appropriate amount, that is, prorated to  
80 deliver this range of dietary fiber gel solids, of fat, including oil and liquid shortening, with an  
81 essentially identical amount of emulsified liquid shortening.

82 The result is that fat and caloric content of dressings can be manipulated with minimal effect  
83 on taste and texture, and as stated above, additional health benefits can be achieved through  
84 consumption of dressings comprising emulsified liquid shortening compositions comprising dietary  
85 fiber gel, water and lipid when functional foods are included in the formulations.